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**From:** Wilson, Jennifer [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DFD5F8786F6F49D7AB4C9C7AB817C2FD-JWILSO02]  
**Sent:** 3/27/2018 10:00:31 PM  
**To:** Kraft, George [gkraft@uwsp.edu]  
**Subject:** RE: 1 of 2

Hi George,

Thank you for all of the information you sent. It is very helpful. I think it pretty solidly states the groundwater flow direction and I don't think we need to have a meeting, but I will see what my management wants to do. I might not have an answer from them until later this week or early next week, though.

Thank you again,  
Jenny

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**From:** Kraft, George [mailto:gkraft@uwsp.edu]  
**Sent:** Tuesday, March 27, 2018 1:13 PM  
**To:** Wilson, Jennifer <wilson.jenniferA@epa.gov>  
**Subject:** 1 of 2

Hi Jenny --

The attached is a powerpoint that my colleague Ken Wade put together for our annual Wisconsin AWRA meeting.

Highlights:

Slide 9 has the groundwater flow map from the 1981 work, showing the dairy in relation to water table elevations.

Slide 10 has nitrate from our data viewer.

Slides 10-14 has water table maps 2008-2014. These were submitted by the dairy owners consultants to Wisconsin DNR. Though groundwater levels fluctuate somewhat, the direction of flow and gradient is pretty darn consistent. And it validates both the 1981 work and what my 1990s work implies about flow in the area.

Slide 16, though upgradient of the dairy, is downgradient from a field that had been recently converted out of pine cover. Watch how nitrate-N goes from 1.8 to 39 in a few years. I believe that one of these monitoring wells hit 70.

Slide 23 makes a strong case that residential wells with high nitrate are being nuked by field practices.

More there, I'm sure.

G